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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,704	12/11/2003	Harold A. Ladouceur	60,152-1034	8657

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EXAMINER

COZART, JERMIE E

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,704

Applicant(s)

LADOUCEUR, HAROLD A.

Examiner

Jermie Cozart

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,9-13 and 18-24 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4, and 18 is/are allowed.
- 6) ☒ Claim(s) 9-13 and 24 is/are rejected.
- 7) ☒ Claim(s) 5 and 19-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/11/03, 1/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On **page 14**, *line 12*, "Of" should not have been capitalized in the middle of a sentence, and it is therefore suggested to change "Of" to - -of- -. Appropriate correction is required.

Claim Objections

2. Claims 5 and 19-23 are objected to because of the following informalities: In **claim 5**, the limitations on lines 14-16 are identical to the limitations 17-19 and is confusing as the repetition of these limitations makes the claim confusing and grammatically incorrect; In **claim 21**, line 30, "space" should be changed to - -spaced- - in order to be consistent with the previous of the phrase "plurality of circumferentially spaced radially outward projecting portions". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donovan (6,546,513).

Donovan discloses a die member (236) comprising a planar panel supporting end face (244) and a die cavity (238) defined in the end face (244) including a central die post (254) having an end face including an outer annular piercing surface spaced

below a plane of the end face, a concave generally semicircular die surface (253) surrounding the die post and a continuous smooth frustoconical side wall extending tangentially from the concave generally semicircular die surface to the end face having an included angle. Donovan discloses the outer piercing surface (not labeled, fig. 11) of the die post (254) being defined by an outer annular planar end surface and a frustoconical side wall (246) extending tangentially from the semicircular bottom surface (253) to the outer annular planar surface at an included angle. Donovan discloses outer piercing surface of the central die post (254) being defined by an outer annular planar surface and a frustoconical inner surface extending tangentially from the annular semicircular bottom surface to the outer annular planar surface defining a sharp piercing edge (not labeled, fig. 11). *See column 4, lines 1-52, and figures 10 and 11 for further clarification.*

Donovan, however, does not disclose the following: the included angle being either between 6 and 10 degrees or 5 and 12 degrees, the continuous frustoconical side wall joining the end face in a radiused surface having a radius of less than 0.04 inches, or the outer piercing surface of the die post being defined by an outer annular planar end surface and a frustoconical side wall extending tangentially from the semicircular bottom surface to the outer annular planar surface at an included angle of about 7 degrees.

It would have been obvious to one having ordinary skill in the art at the invention was made to have the frustoconical side wall extend tangentially from the semicircular bottom surface to the outer annular planar surface at an angle between 6 and 10 degrees or between 5 and 12 degrees, since it has been held that where the general

conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would also have been obvious to one having ordinary skill in the art at the time the invention was made to have the continuous frustoconical side wall join the end face in a radiused surface having a radius of less than 0.04 inches, and to have the frustoconical side wall extend tangentially from the semicircular bottom surface to the outer annular planar surface at an included angle of about 7 degrees, since it has been held that discovering an optimum value of a resultant effective variable involves only routine skill in the art. *In Boesch*, 617 F.2d 272, 205 USPQ 215.

Note that "for attaching a self-piercing element to a panel, the self-piercing element including a tubular barrel portion and an integral radial flange portion having an outer surface including a plurality of circumferentially spaced radially outwardly projecting portions separated by concave surfaces/portions" have not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Allowable Subject Matter

5. Claims 1, 3, 4, and 18 are allowed.

6. Claims 5 and 19-23 would be allowable pending correction of the minor informalities previously cited.


Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference cited on the attached PTO-892 is cited to show the attachment of a self-piercing element into a panel.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jermie Cozart
Examiner
Art Unit 3726

September 13, 2005